

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number  
**WO 2005/012512 A1**

(51) International Patent Classification<sup>7</sup>: C12N 5/06

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(21) International Application Number:  
PCT/JP2004/011401

(22) International Filing Date: 2 August 2004 (02.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003-285475 1 August 2003 (01.08.2003) JP  
2004-058285 2 March 2004 (02.03.2004) JP

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(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: SCAFFOLD-FREE SELF-ORGANIZED 3D SYNTHETIC TISSUE

(57) Abstract: The present invention can be used for actual implantation surgery without a scaffold. The present invention provides a synthetic tissue or complex which can be produced by culture and has a high level of differentiation ability. The present invention also provides a therapy and medicament for repairing and/or regenerating tissue using replacement and covering. By culturing cells under specific culture conditions such that medium contains an extracellular matrix synthesis promoting agent, the cells are organized and are easily detached from a culture dish. The present invention was achieved by finding such a phenomenon. In addition, the self contraction of the tissue can be regulated by culturing the tissue in a suspended manner. Therefore, it is possible to regulate the three-dimensional shape of the tissue. The present invention also provides a method for producing an implantable synthetic tissue which does not require a plurality of monolayer cell sheets assembled to form a three-dimensionally structured synthetic tissue. The present invention is characterized by richness in adhesion molecules, nonnecessity of additional fixation at an implantation site, and good biological integration.